

Name: _____

p1028b: Combine Like Terms (v12)

Example

Combine like terms.

$$-8x + 7 - 3x^2 + 2 + 5x^2 - 5x + 4x^2 + 9 - 2x + 6$$

Answer

Combine the quadratic terms.

$$-3x^2 + 5x^2 + 4x^2 \equiv 6x^2$$

Combine the linear terms.

$$-8x - 5x - 2x \equiv -15x$$

Combine the constant terms.

$$7 + 2 + 9 + 6 \equiv 24$$

The final result:

$$6x^2 - 15x + 24$$

Question 1

Combine like terms.

$$-2 + 2x + 5 + 4x^2 - 3x^2 + 3x^2 - 5 - x - 8x + 7x^2$$

$$11x^2 - 7x - 2$$

Question 2

Combine like terms.

$$-5x^2 + 7x + 6x - 4 - 3x + 2x^2 - 6 + 4 - 2x^2 + 9$$

$$\color{red}{-5x^2 + 10x + 3}$$

Question 3

Combine like terms.

$$-3x + x^2 + 3x - 2 + 2x^2 + 4x + 6x^2 + 9 + 8 - 8$$

$$\color{red}{9x^2 + 4x + 7}$$

Question 4

Combine like terms.

$$3x^2 - 7x - 5x - 4x^2 + 1 + 2x^2 + 6 - 8x + 4 - 2$$

$$\color{red}{x^2 - 20x + 9}$$